

DETAILED ACTION

Request for Continued Examination

1. The request filed on January 7, 2008 for a Request for Continued Examination (RCE) under 37 CFR 1.53(d) based on parent Application No. 10621,727 is acceptable and a RCE has been established. An action on the RCE follows.
2. In view of the amendment filed December 5, 2007, claims 5-10, 15-16, 22 have been cancelled. Claims 1-4, 11-14, 17-21, 23-29 are pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1-4, 11-14, 17-21, 23-29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wool et al. (US 6,121,398), for the reasons adequately set forth from paragraph 7 of the office action of April 6, 2007.

1. (Currently Amended) A low dielectric constant material prepared by curing a mixture comprising
 - (a) a plant oil with an unsaturation,
 - (b) a comonomer, and
 - (c) ~~animal feathers wherein said feathers are feather~~ fiber mats,
~~and wherein said feathers-feather fiber mats~~ are present in an amount of at least 10% by weight in the material.

26. (Currently Amended) A process to make a low dielectric constant material comprising mixing
 - a plant oil with an unsaturation, ~~with~~
 - a comonomer, and

~~animal feathers wherein said feathers are feather fiber mats, and said feathers are present in an amount of at least 10% by weight in the material; and subsequently curing the resulting mixture.~~

The amendment "feather fiber mats" is supported by claim 5 of the original set of claims filed July 17, 2003. However, the specification fails to provide a description of what is considered a "mat" or "mats".

mat**NOUN:**

1. A flat piece of coarse fabric or other material used for wiping one's shoes or feet, or in various other forms as a floor covering.
2. A small flat piece of decorated material placed under a lamp, dish of food, or other object.
3. Sports A floor pad to protect athletes, as in wrestling or gymnastics.
4. A densely woven or thickly tangled mass; *a mat of hair*.
5. The solid part of a lace design.
6. A heavy woven net of rope or wire cable placed over a blasting site to keep debris from scattering.

Wool et al. (col. 21-22, claims 1, 3, 18) disclose a resin system comprising styrene (col. 21, claim 1), soy bean oil (col. 21, claim 3), and bird feathers (col. 22, claim 18). Wool et al. (Figure 1B; col. 2, line 41-49) clearly disclose that the soy bean oil employed is an acrylated epoxidized triglyceride soy bean oil. Although Wool et al. are silent that the disclosed bird feathers are feather mats, in view of that feathers inherently

possess barbules that are organized and are easily stacked together into interlocking (or woven) form, the examiner has a reasonable basis that the claimed "feather mats" feature is inherently possessed in Wool et al. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

In view of the substantially identical composition of Wool et al. and the composition as claimed, the examiner has a reasonable basis that the claimed, dielectric constant of claim 11 is inherently possessed in Wool et al. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Regarding the recitation "subsequently curing the resulting mixture", Wool et al. (abstract) clearly disclose that the liquid molding resins derived are suitable for RIM, TRM, VARTM, SCRIMP, BMC, and SMC molding material applications where the resins must be cured in order to form their final molded products. Therefore, the claimed "subsequently curing the resulting mixture" is inherently possessed in Wool et al.

Regarding the claimed amount of feather mat (claims 26-29), claims 17-18 of Wool et al. (col. 22) generically encompasses the amount as claimed. Applicants must recognize that the recitation "reinforcing" of the claim 17 of Wool et al. (col. 22) means that the feather is in a substantial amount. Applicants must also recognize that both the applicants' specification (page 3, 0008) and Wool et al. (abstract) clearly disclose

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substantially identical liquid molding resin end uses, such as RIM, TRM, VARTM, SCRIMP, BMC, and SMC molding material applications

Applicant's arguments filed December 5, 2007 have been fully considered but they are not persuasive.

Applicants argue the prior art does not disclose feather that are in the fiber mats form. However, in view of the lack of description provided by applicants' specification, the examiner has a reasonable basis to use the common meaning of the word "mat" provided by the dictionary (see page 4 of instant office action). In view of that feathers inherently possess barbules that are organized and are easily stacked together into interlocking form (which is equivalent to a woven mat), the examiner has a reasonable basis that the claimed "feather mats" feature is inherently possessed in Wool et al. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

Regarding applicants' argument on the density of the claimed "feather mat", the argument is not supported by the claims as written.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K Cheung whose telephone number is (571)

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272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/William K Cheung/
Primary Examiner, Art Unit 1796

William K. Cheung, Ph. D.

Primary Examiner

April 13, 2008

